OBJECTS AND THE EXPLANATION OF PERCEPTION

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Persisting macroscopic material objects play a fundamental role in our commonsense understanding of the world around us. I offer a characterization of one central aspect of this role and elaborate a conception of such objects themselves that I argue is essential to their playing it. I conclude that the objects that play this fundamental explanatory role meet the conception that I elaborate.

The explanatory role that I identify concerns the way in which we appeal to the ordinary objects that are presented to us in perception in understanding the actual and counterfactual course and nature of our perceptual experience of them from different points of view over time. The complementary conception of such objects themselves that I am concerned with draws a crucial distinction between Natural Continuants, on the one hand, whose unity, both at a time and over time, is entirely independent of our concepts, and Artificial Continuants, on the other hand, which are grounded upon Natural Continuants and unified in part by various concepts of spatial and temporal partition, collection, and approximation. A key claim linking the two is that Natural Continuants occupy their precise spatial extent exclusively: if o and o' are Natural Continuants and there is a time at which they precisely occupy the same spatial extent, then o=o'. Artificial Continuants fail this Exclusivity condition, both amongst themselves, and with Natural Continuants.

In section 1 I elaborate this conception of persisting macroscopic material objects that I call the Natural Continuants View (NCV).[1] I explain in section 2 how (NCV) sustains a fundamental explanatory role for such objects in connection with our perceptual experience of them that I claim is central to our understanding of the mind-independence of the very objects that we perceive. In section 3 I argue that (NCV) is essential to supporting this explanatory role by considering the explanatory obstacles encountered by objects of perception that fail the Exclusivity condition characteristic of its basic Natural Continuants. Section 4 considers a series of objections to my argument and to my conclusion that (NCV) is essential to the role of objects in the explanation of perception.

1. The Natural Continuants View

(NCV) claims that there are Natural Continuants: persisting macroscopic material objects that are wholly naturally unified, both at a time and over time. Their unity at a time and over time is entirely independent of our concepts and activities. They are characterized by the following condition that I call Exclusivity: if o and o' are Natural Continuants and there is a time at which they precisely occupy the same spatial extent, then o=o'.[2]

[1] Inspired by Michael Ayers (1974, 1991a, 1991b), I develop and defend (NCV) in a series of papers (2015, forthcoming(a), forthcoming(b)).

[2] As it stands, this is simply a necessary condition for Natural Continuant status. Conjoined with the stipulation that o and o' are both persisting macroscopic material objects I intend Exclusivity to be sufficient. Although I have no precise definition of persisting macroscopic material objects, I would begin by giving paradigm examples such as stones, tables, trees, and animals.

I take plausible examples of Natural Continuants to include individual animals, vegetables and (unified portions of) minerals, though even our best hypotheses as to Natural Continuant status may be subject to correction in the light of further investigation. First, there are naturally occurring things, such as (a) a cat that is conceived, grows inside its mother and is born, lives an active life, perhaps losing a tail on the way, dies and eventually disintegrates by decomposition; (b) an acorn that falls from an oak, sprouts in the ground and grows to become a grand old oak that is finally destroyed by loggers; and (c) a rock that detaches and falls from a cliff, gradually eroding to become a small pebble and perhaps even a grain of sand on the beach before vanishing altogether. Second, there are also human-made Natural Continuants, such as (d) a coin, minted and much used, discarded out of circulation, battered and bent, used as tool to open tins, and winding up in a museum collection before finally melting away in a fire.

Four-dimensional perdurants, on the other hand, fail the Exclusivity condition. For, in the sense in which there is one persisting such thing precisely occupying a given spatial extent at a given time, there are many that all share the temporal part that is more strictly there then. Thus, (NCV) is intended to be incompatible with four-dimensionalism.[3]

(NCV) further claims that Natural Continuants metaphysically ground Artificial Continuants by partition, collection, and approximation. The idea is that Artificial Continuants are unified at a time and over time, on the basis of a more

[3] I understand the idea of a persisting macroscopic material object precisely occupying a spatial extent in this way throughout.

fundamental domain of Natural Continuants, at least in part by our conceptual delineation. Such derivative unification operates in various ways, including the spatial and temporal partitioning of a Natural Continuant by our designation of a sub-region of its spatial extent or a temporary role that it plays, say; our collection of appropriately related or functionally similar Natural Continuants at a time or over time; and our approximation of the overall behaviour of a coordinated assemblage of Natural Continuants to that of a single such thing. These modes of grounding by what might be called 'artificial unification' may also be combined.

Artificial Continuants fail Exclusivity, both amongst themselves and with Natural Continuants. There may be Artificial Continuants a and a' such that there is a time at which they precisely occupy the same spatial extent, yet a≠a'; and there may be an Artificial Continuant a and a Natural Continuant o such that there is a time at which they precisely occupy the same spatial extent, yet a≠o. This is possible in their case, in contrast with the Exclusivity characteristic within the Natural Continuants, because Artificial Continuants' basic properties are simply derived from their grounding Natural Continuants.

Examples of what I take to be Artificial Continuants according to (NCV) include arbitrary conceptually delineated spatial parts of Natural Continuants, such as (a) the whole of Tibbles the cat except for his tail; and conceptually delineated temporal parts of Natural Continuants, such as (b) the statue constituted for a time by a lump of clay – that clay whilst-it-is-a-statue. Artificial Continuants also include appropriately related collections of Natural Continuants, such as (c) a

chess set; and coordinated assemblages of Natural Continuants, such as (d) a watch. It is crucial in all these cases, though, to recognize that these are indeed Artificial and not Natural Continuants.[4]

2. The Explanation of Perception

We think of our perceptual experience as the joint upshot of what is there in the world around us and our changing point of view upon it as we move through the world over time. Not only are we right to do so; but this is arguably the key to our understanding of the mind-independence of the very things that we perceive.[5] It is by thinking of the actual course of our experience as jointly explained by what is there anyway in the world and our changing perspective upon it that we appreciate the fact that the very things that we perceive exist, and are as they are, entirely independently of our experience of them.

Recall Berkeley's (1975a, 1975b) central challenge to Locke's (1975) realism about the physical world. If we think of our perceptual experience, as both Locke and Berkeley did, as the simple unstructured presence of certain direct objects, then the unperceived existence of those very objects is unintelligible. For their presence is simultaneously their existence and their being perceived. There is

[4] See my (2015, forthcoming(a), and forthcoming(b)), for extended elaboration and defense of (NCV).

[5] This focus on what has been called a 'simple theory of perception' as the source of our understanding of the mind-independence of the very things that we encounter in perception is a prominent theme in Strawson (1959, ch. 3, 1966, ch. 2.II), Evans, (1980, 1982, ch. 7), Peacocke (1983, ch. 3, 1992, ch. 3), Campbell (1984-5, 1993), Cassam (1989, 1997), Eilan (1997), and Brewer (1992, 1999, ch. 6, 2011, ch. 7).

nothing more nor less to their existence than their being perceived. The theoretical choice at that point is very stark. On the one hand, one may adopt some form of idealism, according to which physical objects are indeed the very things that we are directly acquainted with in perception, whose existence must therefore be tied in some way to perception (to their being perceived, actually, by us or by God; or to the possibility of certain perceptions of them under various counterfactual conditions). On the other hand, one might introduce physical objects as some kind of theoretical postulate quite distinct from the objects of our acquaintance, whose intrinsic nature is therefore irremediably mysterious to us that surely justify Berkeley's accusation to Locke of having plainly changed the subject.

Thankfully, this stark choice is not obligatory. We must reject the conception of perceptual experience as a simple unstructured presence of its direct objects. Perceptual presence as such is an essentially structured phenomenon: the evident joint upshot of what is there anyway and our meeting the spatiotemporal and other enabling conditions on its perception. The perceived existence of the physical objects around us is manifestly the product of two independent factors: (i) what is there to be perceived and (ii) our contingent spatiotemporal route through it (along with our changing attention and other enabling conditions of perception). The first of these may exist, exactly as it is, in the absence of any experience of it, by us, or indeed by anyone else. For our, and their, spatiotemporal route may simply fail to take it in. Nevertheless, when our spatiotemporal route and other conditions do enable our perception of certain physical objects, it is precisely these and nothing else that are presented to us in

experience. Thus, the familiar physical objects that we encounter directly in perception are themselves entirely independent of our perception of them. We register this joint dependence of what we are presented with in perception upon what is there to be perceived anyway and our changing perspective upon it in giving the explanations that we do of our experience in precisely these terms; and it is this understanding of the nature of our experience over time that sustains our conception of the very things that we perceive as entirely independent of our perception of them.

In particular, I understand my current perceptual condition, conscious acquaintance with that thing there before me, as the joint upshot of (i) its being there, just as it is, entirely independent of me and my experience, and (ii) my being suitably placed, attentive, and otherwise enabled to perceive it. Likewise, I recognize that what I am currently presented with in experience has an extended life of its own in the sense that, given any specific trajectory that it takes over time, whether or not I previously encountered that very thing in perception, or will do so again in the future, or would do so in certain counterfactual circumstances, is uniquely determined by my own spatiotemporal route through the world along with my satisfaction of the relevant attentional and other enabling conditions of its perception. I call this condition Explanatory Determinacy, (ED).[6]

[6] It is essential to the current strategy in response to Berkeley's challenge that it is the basic condition of conscious perceptual acquaintance itself – simply having the perceptual experience in question – that is evidently the structured joint upshot of what is presented in that very experience along with the relevant spatiotemporal and other enabling conditions of its perception. This point will be crucial in my response to the sortalist objection in §4.2.1 below.

(NCV) sustains (ED). Its basic Natural Continuants are perceptible macroscopic material objects that are unified, both at a time and over time, entirely independently of our concepts, and that exclusively occupy their precise spatial extent at any time according to the Exclusivity condition. Thus, perception of Natural Continuants at a time presents us directly with the unique and determinate explanatory grounds of our changing experience of those very things from different points of view over time. Suppose that I am now perceiving Natural Continuant o. Given Exclusivity, the only Natural Continuant presented in my experience just there before me is o.[7] It persists and takes a certain trajectory through space over time. Given that, whether I previously perceived o, will do so again, or would do so in various counterfactual circumstances, is uniquely determined by my own actual and counterfactual spatiotemporal route through the world (in conjunction with the relevant attentional and other enabling conditions of perception). Thus (ED) obtains.[8] So (NCV) offers an account of our perception of the most basic material objects in the world around us that straightforwardly sustains the explanatory project that in turn supports our conception of the mind-independence of those very things.

In what follows I argue that the Exclusivity characteristic of (NCV) Natural Continuants is crucial to this fundamental explanatory role, and therefore also crucial to our appreciation of the mind-independence of the objects that we

[7] See §4 below for discussion of a complication introduced by the fact that some Natural Continuants have Natural Continuants as proper spatial parts. I ignore this complication until then.
[8] See below for consideration of the dependent role of (NCV) Artificial Continuants in the explanation of our perception of them.

perceive in the world around us. I do this by considering the explanatory consequences of our perception of phenomena that manifestly fail the Exclusivity condition.

3. The Importance of Exclusivity

Suppose that I am sitting in the Royal Festival Hall watching and listening to the Philharmonia Orchestra. There are many distinct events taking place before me that precisely occupy the same spatial extent right now. The Philharmonia are playing the first movement of Beethoven's Third Symphony; they are also playing bar 47, the first movement exposition, and the whole symphony. They are performing a cycle of Beethoven symphonies that travels across Europe over the course of a week. They are playing the recorded version of the Eroica that cuts together most of tonight's performance with the Funeral March from a studio session tomorrow. I am also witnessing the week-long event in which all of the Beethoven symphonies are being performed by a succession of different orchestras in the Festival Hall and the longer event of which that is a part consisting of performances throughout London over a month of all of Beethoven's works. And these are just a few of the events that are taking place in that very space before me right now: most would take much longer to identify.

Events such as these clearly fail the Exclusivity condition characteristic of Natural Continuants according to (NCV). The Philharmonia's performance of Beethoven 3, their Europe-wide Beethoven cycle and the RFH multi-orchestra cycle are all happening in exactly the same place before me now. Yet these are

plainly distinct events. Indeed, this precise colocation at a time of multiple distinct nested entities is characteristic of events quite generally. Their unity, both at a time and over time depends significantly upon our conceptual articulation into distinct individuals of various different kinds.

Consider just three of the distinct musical events that precisely occupy the same spatial extent in the Festival Hall before me now: the Philharmonia's performance of Beethoven 3, their Europe-wide Beethoven cycle and the RFH multi-orchestra cycle. The experiential implications of various spatiotemporal routes through the world are quite different in connection with each of these. Remaining seated where I am, there is nothing left of the first to hear after 50 minutes or so; and I will miss all that remains of the second however long I sit there; but I will hear successive Beethoven symphony instalments of the third, involving different orchestras on different nights. On the other hand, a well chosen route through the concert halls of other European cities over a week will enable me to hear the whole of the Philharmonia cycle, although I will hear nothing more of their performance of the Eroica after 50 minutes in the Festival Hall, when it is no more; and I will miss successive instalments of the multi-orchestra London cycle.

So (ED) breaks down in this case. A given experiential encounter alone, and a given spatiotemoral route alone are experientially indeterminate. These must be supplemented by one amongst many possible conceptual articulations of a

unique individual event encountered in perception if the explanation is to yield determinate results over time.[9]

We assume at any given time that the very things that we encounter in perception, that are consciously presented to us in experience there and then, are a significant determinant of our experience of them, both at that time and over time as we vary our spatial perspective upon them. According to the proposal currently under consideration, this assumption is a crucial part of the pattern of thinking by which we register the mind-independence of those very things in the world around us that we do encounter in perception. Yet it <u>is</u> truly explanatory only if the idea of what we encounter before us in perception at any given time uniquely identifies a single individual determinant of our experience from different points of view over time. This condition clearly fails in the case of the musical events that I encounter before me now in the Festival Hall.

(ED) also fails in connection with the Artificial Continuants of (NCV) that likewise fail the Exclusivity condition, both amongst themselves and in relation to Natural Continuants. Suppose that a small lump of clay is made into an abstract-shaped statue by a sculptor and then lost. It is subsequently found by someone who uses it unchanged as a doorstop. I see it lying on the floor before me now. Suppose further that its form will shortly be changed in such a way that

[9] <u>Given</u> such conceptual articulation, of course, determinacy returns. But (ED) requires determinacy simply on the basis of what is delineated in conscious perception itself: how things are for the subject in being presented with the world around him in perception. Again, see §4.2.1 for further discussion of this condition.

it improves in its continued use as a doorstop, although it loses the crucial proportions integral to its maker's intentions in the creation of her statue.

According to (NCV) there is a single persisting Natural Continuant present throughout: a single lump of clay, c, that changes its shape and role over time. Its individual unity at a time and over time is entirely independent of our concepts; and it satisfies the Exclusivity condition in connection with other such Natural Continuants. Given any particular role, R, that it happens to take on, such as being a statue or being used to hold open a door, we may consider a dependent Artificial Continuant, c whilst it is R, which is artificially unified on the basis of c by temporal partition induced by R. Call this Artificial Continuant [c, R]. This will be coincident with c whilst c is R in a way that is not possible for Natural Continuants, since its basic properties are simply derived from those of c itself.

Once we include such Artificial Continuants as well as Natural Continuants, the explanatory determinacy that I claim is crucial to our understanding of the mind-independence of the objects that we encounter in experience is lost. I now have before me c, [c Statue] and [c, Doorstop]. Before someone had the bright idea of using c to hold open a door, one of these, [c, Doorstop], had not yet come to be, so could plainly not be perceived in any way, although I could still have seen both c and [c, Statue]. Prior to the sculptor's intervention, only c was there to be seen. After the modification that will shortly be made, [c, Statue] will be no more; c and [c, Doorstop] will be there to be seen. If c were subsequently squashed down into a flat disc, incapable of holding open any door, then all that would remain to be seen would be c itself: [c, Doorstop], too, would be no more. So, if it is allowed to

apply to both Natural and Artificial Continuants, the basic idea of what I currently see before me varies dramatically in its experiential implications at other times: conjoined simply with the idea of my spatiotemporal route through the world, it has no determinate experiential explanatory implications as to its past, future, or counterfactual perceptual presence. According to (ED), on the other hand, given any specific trajectory taken over time by what I perceive before me now, my own spatiotemporal route through the world uniquely determines (in conjunction with my satisfaction of the relevant attentional and other enabling conditions on perception) whether or not I previously encountered that very thing in perception, or will do so again in the future, or would do so in certain counterfactual circumstances.

Perception alone is incapable of separating collocated (Natural and Artificial) Continuants. Yet (ED) requires that perception itself should evidently present us with the determinate explanatory grounds of our various experiences of such things from different points of view at different times. Only so is it correct to insist on the characterization of our experience as the structured joint upshot of what is there anyway in the world and our spatiotemporal route through it over time.[10] The only way to retain (ED), and hence the proposed response to Berkeley's challenge, is therefore to restrict the fundamental application of the idea of what I encounter in perception at any time to the basic Natural Continuants that meet the Exclusivity condition.

[10] Once again see §4.2.1 for further development of these ideas in connection with an objection from sortalism.

Of course, we understand perfectly well the mind-independence of the various events and Artificial Continuants that we encounter in perception. My point is that this understanding depends upon a more basic understanding of the mind-independence of the Natural Continuants upon which such events and Artificial Continuants themselves depend: c in the case of the statue and doorstop above; and the individual players involved in the various performance events considered previously. Furthermore, this basic understanding of the mind-independence of Natural Continuants is sustained by patterns of explanation, and by (ED) in particular, that essentially exploit their characteristic Exclusivity. Thus, (NCV) is absolutely crucial to the current account of our understanding quite generally of the mind-independence of the very objects that we encounter directly in perception.

4. Objections and Replies

I have argued that (NCV) is essential to our understanding of the mind-independence of the objects that we encounter in perception. §4.1 enumerates a sequence of concerns about the argument that I do not consider further here; §§4.2-4.4 respond to a further series of objections that I consider more pressing.

4.1 Mind-Independence and Explanation

It is certainly a fundamental feature of our commonsense conception of the world that the very objects that we encounter in perception are entirely independent of our, or indeed anyone else's, perception of them. What we

perceive is there to be perceived anyway, whether we perceive it or not. Berkeley is absolutely right in my opinion at least to challenge this conviction. For how do we actually make sense of the possibility that the very things that we encounter directly in our experience might exist and be exactly as they are in the absence of any such experience of them? The starting point of my argument is the claim that this understanding is sustained by our practice (normally correctly) of explaining the course and nature of our perceptual experience as the joint upshot of what is there to be perceived in the world around us and our changing point of view upon it as we move through the world over time. It may be objected right at the outset, though, that, although we happen to go in for such explanations, our doing so, and indeed the normal correctness of the explanations of this form that we give, are quite inessential to our understanding of the mind-independence of what we perceive. So my argument does not even get off the ground. Concern may arise every step of the way.

First, one might reject the Berkeleyian challenge outright. Perception simply does present the constituents of the world around us as independent of our experience of them. This is a datum in need of no explanation. There remains a sceptical question concerning whether and how our beliefs in taking such experience at face value attain the status of knowledge; but there are a range of familiar more or less plausible approaches to this issue. Nothing deeper is required by way of understanding how perception presents us with a world of objects that are independent of that very experience.

Second, one might accept the challenge to explain the fact that perception presents the constituents of the world around us as independent of our experience of them, but deny that this should be done by any appeal to the contrast between a simple, unstructured notion of perceptual presence and a structured conception on which this should be understood as the joint upshot of what is there to be perceived and our contingent spatiotemporal route through the world (along with our changing attention and other enabling conditions of perception). An alternative explanation might be given instead, for example, by appeal to the evolution of neural mechanisms realizing various robust perceptual constancies.[11]

Third, one might accept, both the Berkeleyian challenge and the Evansian response in terms of a 'simple theory of perception' (Evans, 1980, 1982, ch. 7), but deny that this response is necessarily to be implemented by appeal to perceivers' own actual engagement with various patterns of explanation of the course and nature of their perceptual experience in accord with the simple theory of perception. As theorists, we may respond to Berkeley's challenge by appeal to the idea that perceivers' experience of particular objects in the world around them is the joint upshot of those very things being there anyway, independently of any such experience, and the satisfaction of various spatiotemporal and other enabling conditions upon their perception. This theoretical truth explains the datum, for all of us, that perception presents the constituents of the world around us as independent of our experience of them,

[11] See in particular Burge (2010), for a very well worked out development of an account along these lines.

without placing any explicit requirements, explanatory or otherwise, upon theoretically uninterested perceivers.

Fourth, one might supplement the third response above with the idea that, over the course of their development and active exploration of the world over time, perceivers themselves inevitably acquire an increasingly sophisticated conception of the objects that they perceive as independent of their perception of them without ever necessarily turning explicitly to the question of the correct explanation of the course and nature of their experience itself.

Fifth, one might accept, the Berkeleyian challenge, the Evansian response, and the idea that this depends upon some recognition on the part of the perceivers themselves that the course and nature of their perceptual experience is to be explained by appeal to the mind-independent constituents of the perceived world and their own spatiotemporal route through the world and other enabling conditions of perception, but insist that such explanations are ultimately to be given in fundamental physical terms that make no explicit reference to the persisting macroscopic material objects that we encounter directly in our perceptual experience. Commonsense explanations appealing to such things are inessential placeholders for the correct explanations that proceed instead in quite different terms.

Sixth, and finally, one might accept, the Berkeleyian challenge, the Evansian response, and the idea that this depends upon perceivers' commonsense explanation of the course and nature of their perceptual experience as the joint

upshot of the distribution and nature of the very material objects that they perceive and their own spatiotemporal route through the world and other enabling conditions of perception. Still one might deny that such explanations must conform to (ED), the condition that, given any specific trajectory that a direct object of perception takes over time, whether or not that very thing was previously encountered in perception, or will be so again in the future, or would be so in certain counterfactual circumstances, is uniquely determined by one's own spatiotemporal route through the world along with the satisfaction of the relevant attentional and other enabling conditions of its perception.

All of these possibilities raise serious and controversial issues that I cannot possibly address here.[12] As indicated above, I myself accept the Berkeleyian challenge, the Evansian response, and the idea that this depends upon perceivers' commonsense explanation of their experience in accordance with (ED). What follows is not without interest even to those who part company with this approach as just indicated or for any other reason. For we all do give the kinds of explanations of our experience that I take to be so central to our understanding of the mind-independence of the objects that we encounter in perception; and we take these at least approximately to be correct. The very objects that we perceive are the explanatory grounds of our changing experiences of them over time as we take the route that we do through the world that they constitute and in which we find ourselves. So the conditions on the coherence and correctness of such explanations are of quite general interest.

[12] I discuss the fifth response at length in ch. 7 of my (2011); and the position considered in §4.2.1 below may be construed as variant of the sixth.

4.2 Explanation and Exclusivity

The next move in my argument is the claim that the determinate success of our explanations of the nature of our experience on the basis of the objects that we perceive and our route through the world over time depends upon the Exclusivity that is characteristic of (NCV) Natural Continuants. I consider in §4.2.1 and §4.2.2 below two variants of the objection that (ED) is instead perfectly compatible with the failure of Exclusivity amongst the persisting mind-independent objects of perception.

4.2.1 Sortalism

Recall the situation in the Royal Festival Hall as I sit listening to the Philharmonia playing Beethoven 3. There are many events going on in exactly the same place before me at that time. These include at least the following: the Philharmonia's performance of Beethoven 3; their performance of its first movement; their Europe-wide Beethoven cycle and the RFH multi-orchestra cycle of Beethoven symphonies. This is simply an instance of the failure of Exclusivity for events. Still, it may be claimed that (ED) in relation to the course of my experience may be reinstated simply by a judicious appeal to appropriate event-sortal categories in my identification of the relevant explanantia. Thus, after 50 minutes or so, remaining in the Festival Hall, I will hear no more of this performance of Beethoven 3, and will be in the wrong place to hear the subsequent parts of this Philharmonia cycle of Beethoven symphonies; I will nevertheless hear

subsequent parts of this Festival Hall Beethoven cycle, starting in just under 24 hours with the 4th symphony played by the LSO. Similarly, provided that I take the right route through Europe's major concert halls, I will catch all that remains of this Philharmonia cycle of Beethoven symphonies, although I will miss the remainder of this Festival Hall Beethoven cycle, including the finale performance of the 9th symphony by the Berlin Phil. Introducing appropriate musical event categories in this way preserves perfect determinacy in these explanations of the course of my experience over time on the basis of what is there to be perceived and my route through the world.

Resolving the ambiguity in the notion of what I encounter in perception by appeal to an appropriate sortal category in this way reinstates (ED) in the face of the failure of Exclusivity.[13] Given any specific trajectory taken over time by the performance of the relevant kind that I perceive before me now, my own spatiotemporal route through the world uniquely determines (in conjunction with my satisfaction of the relevant attentional and other enabling conditions on perception) whether or not I previously encountered that very thing in perception, or will do so again in the future, or would do so in certain counterfactual circumstances. So sortalism blocks the argument from (ED) to Exclusivity.

The same applies to (NCV) Artificial Continuants. Before me now stand c, [c Statue] and [c, Doorstop]. Given its trajectory over time, my past, future, and

[13] This appeal to sortalism is motivated by Wiggins' seminal work on material substance (1967, 1980, 2001).

counterfactual experience of c depend simply on my own spatiotemporal route through the world and other relevant enabling conditions. Similarly, given their trajectories, my experience of [c Statue] and of [c, Doorstop] likewise depends simply on their appropriately enabling intersection with my own spatiotemporal route. Provided that the relevant sortal categories are included in my characterization of both my past, future, and counterfactual experience and what I now encounter in perception, then the (ED) explanatory scheme by which I understand my experience at any time as the joint upshot of what is there to be perceived and my spatiotemporal route through the world remains in place. So, once again, sortalism blocks the argument for Exclusivity.

In reply to this line of objection I argue that the proposed sortalist reinstatement of (ED) is inconsistent with the fundamental role of (ED) in response to Berkeley's challenge. The sortalist proposal in this context also faces serious problems on its own terms. I take these two points in turn.

Recall Berkeley's challenge to Locke. If we think of our perceptual experience as the simple unstructured presence of certain direct objects, then the unperceived existence of those very objects is unintelligible. For their presence is simultaneously their existence and their being perceived. There is nothing more nor less to their existence than their being perceived. As we saw above, the theoretical choice at that point is very stark: idealism with mind-dependent physical objects, or indirect realism with postulated mind-independent physical objects distinct from any objects of our acquaintance. The solution is to reject the conception of perceptual experience as a simple unstructured presence of its

direct objects. Perceptual presence as such is an essentially structured phenomenon: the evident joint upshot of what is there anyway and our meeting the spatiotemporal and other enabling conditions on its perception. (ED) is a condition on implementing this solution. We must understand what is presented to us in experience at any time as having an extended life of its own in the sense that, given any specific trajectory that it takes over time, whether or not I previously encountered that very thing in perception, or will do so again in the future, or would do so in certain counterfactual circumstances, is uniquely determined by my own spatiotemporal route through the world along with my satisfaction of the relevant attentional and other enabling conditions of its perception.

The key idea here for present purposes is that its role is responding to Berkeley requires that (ED) applies directly to perceptual presentation itself. According to the conception proposed in response to his challenge, perceptual presentation is evidently in itself the structured joint upshot of what is presented in that very experience along with the relevant spatiotemporal and other enabling conditions on perception. Thus such experience taken entirely on its own presents to the subject the explanatory ground of alternative experiences from different points of view at different times as such. So (ED) requires determinacy in experiential implications simply on the basis of what is delineated in conscious perception itself: how things are for the subject in being presented with the world around him in perception.

According to the proposed sortalism, on the other hand, (ED) is reinstated only on the basis of an additional essential role for sortal concepts in distinguishing amongst collocated worldly phenomena that are purely perceptually indistinguishable at the time. So this fails as an implementation of the proposed (ED) response to Berkeley's challenge.

Furthermore, the involvement of sortal categorization at just this point in the overall view brings problems of its own. In the sense that I have just explained, this makes the world of mind-independent physical objects inaccessible purely on the basis of our perceptual experience. We attain cognitive contact with the mind-independent world as such on this view, if at all, only on the basis of an application to the direct deliverances of perception of a theoretical sortal categorization of its elements. But with what right can the account claim that what is thereby categorized as falling under one sortal concept or another is genuinely a collection of mind-independent things? For perception alone provides us with no domain of such entities as the subject matter of sortal categorization. Similarly, what are we supposed to make of the perceptual experience of infants prior to the acquisition of the relevant sortal concepts? This likewise fails to present them with a world of persisting mind-independent things. The situation is quite different according to (NCV). For, on this view, perception itself acquaints us directly and unaided with a domain of mind-independent physical objects as such that constitutes the subject matter of our

developing theoretical categorization on the basis of education and sustained experiment and observation over time.[14]

The sortalist objector certainly has a point. There are (ED) explanations to which the discrimination and conceptual articulation of non-Exclusive objects of perception are essential. But this fails to undermine my argument. For these more complex explanations are themselves dependent upon a more basic level of experiential explanation and understanding of the objects that we perceive whose determinacy crucially exploits the Exclusivity that is characteristic of (NCV) Natural Continuants.

4.2.2 Reference Magnetism

I am considering attempts to conjoin the satisfaction of (ED) by our simple explanations of the course of our perceptual experience by appeal to the worldly objects that we perceive and our continuous spatiotemporal route through them with the denial of the Exclusivity of the most basic such perceptible worldly objects that is characteristic of (NCV) Natural Continuants. The only alternative to sortalism that I can see here is to invoke the notion of reference magnetism (Lewis, 1983, 1984). The basic idea is that the world may often contain multiple candidates for reference in thought and talk that are all equally qualified in respect of the constraints operative within the subject's perspective. Nevertheless, the tie between them may be broken by purely objective

[14] These brief comments place me firmly on Travis' side in his debate with McDowell as this is played out in their two contributions to the present volume.

considerations of their relative eligibility as objects of reference. The most eligible attract reference like magnets; and the correct theory of reference uniquely assigns the most eligible in any such case. Thus, experiential explanations meeting (ED) may be given even in the context of multiple collocated non-Exclusive objects of perception indistinguishable from within the subject's perceptual perspective at a given time. For these uniquely track the spatiotemporal trajectory of the most eligible such item.

Recall again my position in the Festival Hall listening to the Philharmonia. There are many events going on in exactly the same place before me now. These include at least the following: the Philharmonia's performance of Beethoven 3; their performance of its first movement; their Europe-wide Beethoven cycle and the RFH multi-orchestra cycle of Beethoven symphonies. Each of these offers quite different experiential opportunities for various specific spatiotemporal routes through the world. (ED) may be satisfied in spite of this provided that one of these events is objectively most eligible as the unique reference of my current perceptual demonstrative indication of what I am witnessing there now: perhaps the Philharmonia's performance of the whole of Beethoven 3. Thus, the core claim of reference magnetism is ideally suited to implement the current line of objection to my overall argument. (ED) is compatible with the denial of Exclusivity.

This strikes me as an unstable position, or else a notational variant of my own (NCV). The official metaphysics postulates many (perhaps indefinitely many) multiply nested persisting individuals all in exactly the same place at a time. The

theory of perceptual demonstrative thought that is conjoined with it essentially depends on the existence in every case of a unique objectively privileged element of this nested set eligible to serve as the determinate explanatory ground of perceptual experience over time. This is metaphysical multiplicity always and everywhere masquerading so far as our explanatory thought and talk is concerned precisely as the natural unity characteristic of (NCV) Natural Continuants. Put another way, the idea of natural mind-independent reference magnets is an excellent one. Those serving as the basic referents in our explanations of the course of our experience by appeal to the persisting macroscopic material objects that we perceive and our spatiotemporal route through the world are precisely the Natural Continuants proposed by (NCV). In the absence of such a systematic metaphysical foundation, the appeal to reference magnetism strikes me as an optimistic brute assertion of the compatibility that I reject of (ED) with the denial of Exclusivity.

According to (NCV), whenever I encounter non-Exclusive Artificial Continuants in perception, these are necessarily grounded on Exclusive Natural Continuants that serve as the basic referents of my simple perceptual demonstratives. Only if it mirrors this picture will the appeal to reference magnetism succeed in preserving (ED). Without the systematic grounding proposal, the current objectors proposal is unstable. With it, it is close to a notational variant of (NCV), highlighting the important idea that simple perceptual demonstrative reference gravitates towards Exclusive Natural Continuants.

I have considered two lines of objection to my claim that (ED) depends upon the Exclusivity that is characteristic of (NCV) Natural Continuants. Sortalism attempts to induce (ED) upon a non-Exclusive domain by appeal to conceptual distinctions within the subject's perspective. But this is incompatible with the crucial foundational role of the simple explanatory scheme in application directly to perceptual experience itself unadorned by any subsequent theoretical-conceptual categorization. So the objection fails. Reference magnetism seeks to induce (ED) upon the non-Exclusive domain by appeal to the unique objective eligibility of one amongst many collocated objects of perception to serve as the referent at a time in our explanations of the course of our experience over time. If this is to be an objection to my argument, then it must reject the characteristic (NCV) idea of a basic domain of Exclusive Natural Continuants grounding non-Exclusive Artificial Continuants. But in that case the appeal to reference magnetism in order to preserve (ED) is without the necessary metaphysical basis. So again the objection fails.

4.3 Spatial Parts

My argument for the essential role of Exclusive Natural Continuants in our most basic explanations of the course of our perceptual experience over time rests on the failure of (ED) that results from attempting to appeal only to non-Exclusive events and Artificial Continuant temporal parts instead. The basic problem is that I encounter a nested multiplicity of collocated such things of varying temporal extents at any given time in perception and therefore fail to identify on the basis of such perception alone anything that has determinate experiential

implications for any specific route through the world that I may take over time. The recognition of a basic domain of Exclusive Natural Continuants amongst the persisting material objects that we encounter in perception precisely avoids this problem. For there cannot be two such things in exactly the same place at any given time yet which extend differentially through time: if o and o' are Natural Continuants and there is a time at which they precisely occupy the same spatial extent, then o=o'.

Still, it may be objected that a parallel problem does remain in connection with spatial extent at a time even within the domain of Natural Continuants. So, either the failure of Exclusivity is not the fundamental source of the explanatory problem in connection with events and Artificial Continuants, or my argument that there is a pressing explanatory problem here at all is mistaken. This objection takes a little stage-setting.

To begin with, note that Exclusivity implies that Natural Continuants have no Natural Continuant proper temporal parts. For suppose that n is a Natural Continuant proper temporal part of a Natural Continuant N and that n exists at time t. It follows that N and n precisely occupy the same spatial extent at t. Hence N=n by Exclusivity. Yet n is a proper part of N. Hence N≠n. This is a contradiction. So Natural Continuants have no Natural Continuant proper temporal parts. On the other hand, Natural Continuants plausibly do have some Natural Continuant proper spatial parts. Although some of the proper spatial parts of Natural Continuants are Artificial Continuants that result from some kind of abstraction by spatial partition, such as the whole of Tibbles the cat except for its tail, other

proper spatial parts are plausibly themselves Natural Continuants, whose unity, both at a time and over time, are entirely independent of our concepts and activities, and that themselves meet the Exclusivity Condition. In what follows I presume that its individual (attached) leaves are such Natural Continuant proper parts of a Natural Continuant tree.

Suppose now that I encounter a tree, T, with two attached leaves, L_1 and L_2. It is straightforward to generate failures of (ED) in connection with what I encounter in perception now. L_1 may fall to the ground in 1 minute; L_2 may blow off in 2 minutes and eventually come to rest 1 mile away. The experiential implications of various spatiotemporal routes through the world are quite different in connection with each of these. Remaining exactly where I am I eventually loose sight of L2 after 3 minutes, say, as it disappears into the distance; I may or may not continue to perceive L_1 depending on exactly where it falls to the ground in relation to trunk of T and my line of sight; T remains in view as it decreases twice in size loosing L_1 an L_2 in turn until it is bare. Supposing that I do loose sight of L_1 as it falls, I need only move round T to perceive it again, and to see it change over time from green to brown. The route that I have to take to keep track of L_2 is more extended and following it has the consequence of my loosing sight first of L_1 and then eventually of T.

According to (ED), given any specific trajectory taken over time by what I perceive before me now, my own spatiotemporal route through the world uniquely determines (in conjunction with my satisfaction of the relevant attentional and other enabling conditions on perception) whether or not I

previously encountered that very thing in perception, or will do so again in the future, or would do so in certain counterfactual circumstances. I perceive T, L_1, and L_2 before me now. Yet various routes that I may take through the world yield inconsistent answers to the question whether I perceive these very things again: 'yes', 'possibly', 'no', as I remain where I am; 'no', 'no', 'yes', as I follow L_2 to the end of its journey. Even Exclusivity fails to secure (ED) in general. So my argument is again under threat.

The key to my reply to this objection is a distinction between what is there before me at any given time and what I actively encounter in perception at that time as modulated by the scale and direction of my spatial attention. First, though, I must stress that only very few and specific proper spatial parts of Natural Continuants are themselves Natural Continuants. Plausible candidates are certain organs of animals, and their individual teeth, say; and the leaves and fruit of certain plants. Most of the proper spatial parts of Natural Continuants are Artificial Continuants abstracted from them by some form of spatial partition. Given this, the range of distinct Natural Continuants before me at any given time is normally quite limited, and these are normally quite straightforwardly distinguished by their relative size and/or position. Thus, in the toy case of the tree and its two leaves above, T is very significantly larger than L_1 and L_2, each of which has a different position on T's branches. So, faced with T and its L_1 and L_2 Natural Continuant proper parts, I may be attending specifically to any of them. Suppose that I am attending to T. Then what I encounter remains in view as it looses its leaves, provided that I stay where I am, and gradually disappears out of view as I run away following L_2, say. On the other hand, taking the latter route

myself, I precisely succeed in keeping track of what I encounter in experience there before me if we suppose that I am currently attending instead to L_2. Similarly there are different determinate experiential implications again of attending instead to L_1.

In general, then, I claim that consideration of the scale and direction of spatial attention is normally sufficient to reinstate (ED) for any specific spatiotemporal route through the world. The simple principle that the course and nature of my experience over time is jointly determined by the very things that I (attentively) encounter in perception there before me and my spatiotemporal route through the world therefore normally applies. So the existence of some Natural Continuant proper spatial parts of Natural Continuants is no threat to my argument that Exclusive (NCV) Natural Continuants are fundamental to our most basic understanding and explanation of the course of our perceptual experience of the world around us over time as we trace a continuous spatiotemporal route through what we find in the world.[15]

An analogous <u>temporal</u> attentional strategy does not succeed in reinstating (ED) in connection with non-Exclusive objects of perception such as events. First, in contrast with their current spatial extent, it is plausibly indeterminate at a given time how long the various events that are perceived at that time may continue. For example, Esa Pekka Salonen may not yet have decided how expansively to

[15] If every Natural Continuant had a Natural Continuant proper spatial part attentively indistinguishable from it – all the way down, as it were – then the existence of such Natural Continuants alone would be insufficient to secure the robust application of the (ED) response to Berkeley's challenge. I have already explained that this is not the case according to (NCV) as I understand it.

take the Funeral March or how much to drive the Scherzo in the current performance of Beethoven 3. So any role of temporal attention in uniquely determining a single object of current perception must exploit an appropriate sortal categorization – attending to the whole of this performance of Beethoven 3, for example, rather than the event consisting of that performance and the subsequent applause, say. In which case, the objection that I gave to sortalism above, that it is incompatible with the foundational role of the simple explanatory scheme in our thinking about the mind-independent world around us, applies equally in this case. Second, in contrast with the case of the Exclusive Natural Continuant proper parts of Natural Continuants, a given temporal extent does not uniquely determine one amongst the many collocated event-objects that I am perceiving in the Festival Hall. Perhaps the Philharmonia's Europe-wide Beethoven cycle will end at exactly the same time as the RFH multi-orchestra cycle. Temporal attentional extent fails to reinstate (ED). Similarly in more realistic cases for the present proposal of much shorter-lasting events. So again the analogy with my appeal to spatial attention above breaks down. (ED) does indeed depend on the Exclusivity of (NCV) Natural Continuants.

4.4 Metaphysics and Philosophy of Mind

Finally, I end with a question. How can ideas from philosophy of mind seriously constrain our metaphysics? How can claims about the way in which we register the mind-independence of the objects of perception determine the correct metaphysics for those very objects themselves?

My answer is that metaphysics is not simply an empty game of consistency and the minimization of some abstract notion of counterintuitiveness. These tools for metaphysical theory–selection have to be directed at a specific domain. A metaphysical investigation into the nature of X's, that is to say, has to be directed and controlled by some provisional understanding at least of which things the X's are. In the case of the nature of the familiar persisting macroscopic material objects around us, this constraint comes at least in part from their nature as the evidently mind-independent objects that we encounter in perception. And I claim that this is a matter of their being the objects to which we appeal as the (ED) explanatory grounds of the order and nature of our experience of such things over time.

An error theory is always a possibility, as in some versions of the standard account of the secondary qualities.[16] But this requires an independent argument that the world could not possibly contain objects of the kind required by our initial controlling conception. Although this is clearly a major topic in its own right that I cannot possibly address here, I am yet to be convinced by any such argument in the present case. Thus, I offer an argument from the premise that the familiar persisting material objects that we encounter in perception are evidently independent of our perceptions of them to the conception of these proposed by (NCV). Perhaps less ambitiously, I conclude at the very least that

[16] See, e.g., Mackie (1976, ch. 1).

(NCV) is essential to (ED) explanations of our experience of the mind-independent world over time.[17]

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